

PATENT ABSTRACTS OF JAPAN

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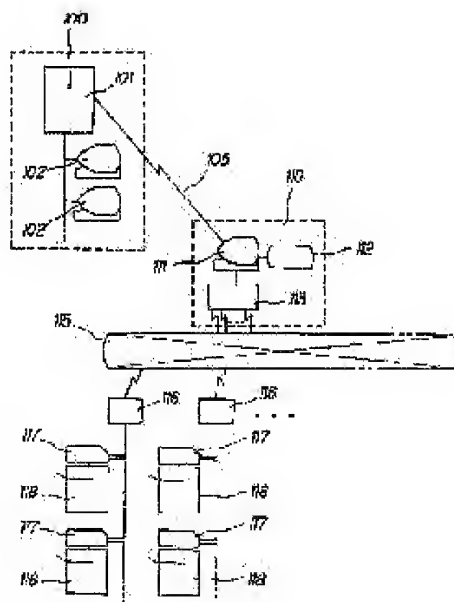
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(54) SUPPLY ORDERING SYSTEM

(57)Abstract:

PURPOSE: To attain the work efficiency and the economical efficiency of a supply control job by reducing operation for inventory control and an ordering job done by a supply controller and for supply order receiving and delivery job done by a supply maker, and suppressing supply storage space to a minimum and eliminating being out of supply stock.

CONSTITUTION: This device possesses a supply order receiving system 100 executing the input storage/control of the order receiving information from a customer of a supply used for a copying machine 118 and ordering and delivering instructions, and a supply ordering system 110 gathering the used quantity of the supply at a specified interval and outputting a shipping request to the supply order receiving system 100 when the used quantity of the supply reaches the specified quantity.



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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application]This invention the amount of the supplies (a recording form, a toner, etc.) used in the image forming devices (a copying machine, a facsimile, a printer, etc.) by the side of a customer via a public network by the system by the side of supply order. It collects and calculates, the ullage to an optimum dose inventory is computed based on the amount of this [used], and it is related with the supply ordering system which auto-sends a shipment requirement to the supply order-received side.

[0002]

[Description of the Prior Art]Conventionally, management supply etc. of the supply to be used were performed to the service base side [groups /, such as a copying machine currently installed in the customer, and a laser beam printer, / image forming device] as follows for every customer, for example.

- (1) A customer's management person in charge applies order to a dealer by connection that stock of the use supplies (a recording form, a toner, etc.) used from a general operator went out, or the inventory check by the management person in charge itself.
- (2) An ordering dealer checks his company stock and what can carry out inventory correspondence delivers the warehoused item.
- (3) Like an ordering dealer, although an ordering sales company does a check and its work, about a supply out of stock, it applies order to a supply maker etc. and delivers after acceptance.

[0003]

[Problem(s) to be Solved by the Invention]However, if it is in the conventional supply ordering system as shown above, In a customer, the work of the ordering business to the inventory management and the maker by a supply pipe Osamu person in charge, etc. takes time and

effort, and. There was a problem that the claim from an operator etc. will increase by the time the supply goes out and is delivered, or a device will be in a use improper state with a supply piece. If a supply is kept too much in order to cancel this problem, ***** will learn that storage space as it is large, and ***** will arise.

[0004]In a supply maker, there was a problem that the load of the supply order received by a help and its delivery was large. When a supply piece arose, there was a problem that the demand could not be satisfied quickly and a supply could not be supplied.

[0005]This invention is made in view of the above, and carry out reduction of the work in the inventory management by a supply pipe Osamu person in charge, ordering business, and the supply order received and delivery service by a supply maker, and. A supply storage space is stopped to the minimum, and further, a supply piece is eliminated and it aims at planning the working efficiency and economical efficiency of supply pipe Osamu business.

[0006]

[Means for Solving the Problem]If it is in a supply ordering system concerning claim 1 in order to attain the above-mentioned purpose, When a supply receiving means which performs input storage and management of order information of a supply, and order and delivery instruction which are used for an image forming device from a customer, and the amount of said supply used are collected at the predetermined intervals and the amount of the supply used reaches the specified quantity, A supply placing means which outputs a shipment requirement to said supply receiving means is provided.

[0007]If it is in a supply ordering system concerning claim 2, Carry out automatic collection of the amount used for every recording paper size to a supply receiving means which performs an input and storage management, order, delivery instruction, etc. of this order information with a prescribed interval from a customer about supplies for copying machines, such as a recording form and a toner, at the time of an order received, and. When data processing of the amount of toner used is carried out and said recording form and the amount-used data of a toner become below in an inventory optimum dose lower limit for every customer, data processing of the insufficient daily dose to an optimum dose inventory is carried out, and a supply placing means which outputs a shipment requirement to said supply receiving means is provided.

[0008]If it is in a supply ordering system concerning claim 3, A supply receiving means constituted by a shipment check, shipping instruction and an order-receiving-control means to perform delivery processing, and order information input means that inputs supply classification and the amount of orders received for every customer for every time of an order received, Carry out automatic collection of the amount used for every recording paper size to an external memory means to memorize all the customer lists and said order information to an order file, with a prescribed interval to all the customer lists, and. When data processing of the

amount of toner used is carried out and said recording form and the amount-used data of a toner become below in an inventory optimum dose lower limit for every customer, A supply placing means which carries out data processing of a proper quantity of insufficient daily doses to an inventory, memorizes to an order file of said external memory means, and outputs a shipment requirement for data in this order file to said order-receiving-control means, A means of communication which connects a supply automatic order means constituted by communication control means which performs two or more image forming devices and data communication control via a public line, and said order-receiving-control means and said supply placing means so that data communications are possible is provided.

[0009]

[Function]The supply ordering system (claim 1) concerning this invention, When input storage management of the order information of a supply, and the order and delivery instruction which are used for the image forming device from a customer are performed, the amount of said supply used is collected at the predetermined intervals and the amount of the supply used reaches the specified quantity, a shipment requirement is outputted to a supply receiving means.

[0010]The supply ordering system (claim 2) concerning this invention, By a supply receiving means, at the time of an order received, perform an input and storage management, order, delivery instruction, etc. of this order information, and from a customer about supplies for copying machines, such as a recording form and a toner, a supply placing means, When automatic collection of the amount used for every recording paper size is carried out with a prescribed interval, and data processing of the amount of the toner used is carried out and said recording form and the amount-used data of a toner become below in the inventory optimum dose lower limit for every customer, data processing of the insufficient daily dose to an optimum dose inventory is carried out, and a shipment requirement is outputted to said supply receiving means.

[0011]By a supply receiving means, the supply ordering system (claim 3) concerning this invention performs shipment check, shipping instruction, and delivery processing, inputs the supply classification and the amount of orders received for every customer for every time of an order received, and memorizes all the customer lists and the above-mentioned order information for an external memory means at an order file. A supply automatic order means carries out automatic collection of the amount used for every recording paper size with a prescribed interval to all the above-mentioned customer lists, and. When data processing of the amount of the toner used is carried out and a recording form and the amount-used data of a toner become below in the inventory optimum dose lower limit for every customer, Data processing of a proper quantity of insufficient daily doses to an inventory is carried out, it memorizes to the order file of an external memory means, and a shipment requirement is

outputted for the data in this order file to an order-receiving-control means via a means of communication.

[0012]

[Example] Hereafter, one example of this invention is described with reference to an accompanying drawing. Drawing 1 is a block diagram showing the composition of the supply ordering system concerning this invention. In a figure, this composition comprises greatly the supply order accepting system 100 and the supply order accepting system 110. The supply order accepting system 100 is constituted by the console 102 connected to the computer 101 and this computer 101. [two or more]

[0013] The computer 111 by which the above-mentioned supply ordering system 110 performs control of this whole system, It is constituted by the external storages 112, such as a magneto-optical disc, magnetic tape, a floppy disk, and an IC card, and the many channel type multi-channel communication control unit (CCU) 113. The computer 101 of the supply order accepting system 100 and the computer 111 of the supply ordering system 110 are connected by the communication line 105 (or channel interface) so that data communications are possible. The public network 115 is connected to the above-mentioned multi-channel communication control unit 113, and the keycard device 117 and the copying machine 118 are connected to it two or more sets via the communication adapter 116.

[0014] Although this example explains the copying machine (PPC) 118 taking the case of the system connected [two or more] as an image forming device, otherwise, they may be image forming devices, such as a printer and a facsimile machine. The thing corresponding to the record process of the device is used, also about a supply, when it is PPC, it is a recording form (regular paper) and a toner, but in the case of a printer or a facsimile machine, a thermal paper, a recording ribbon, ink, etc. are used.

[0015] Next, operation of the supply ordering system constituted as mentioned above is explained. First, the supply order accepting system 100 which is the 3rd system about the recording paper size for [in / supply / (consumable goods) / which is used for copying machines, such as a recording form and a toner, / ordering units such as every customer or a customer tip part gate (every etc.),] an order received, the classification of a toner, and the input of the amount of orders received. It inputs from the console 101 to constitute for every time of an order received. Subsequently, the above-mentioned input is transmitted and stored in the external storage 112 which constitutes the supply ordering system 110 from the computer 101 via the communication line (or channel interface) 105.

[0016] Collection of the amount data of the supply used and its data processing are made like, and are performed to below. Namely, (1) supply ordering system 110, It is beforehand transmitted from the supply order accepting system 100, and automatic collection of subsequent data is performed to the keycard device 116 via the multi-channel communication

control unit 113, the public network 115, and the communication adapter 116 based on all the customer lists stored in the external storage 112.

(2) The communication adapter 116 currently installed in the customer, The keycard device 117 with which a customer corresponds. And it is arranged near the copying machine 118, and is further connected with a customer's facsimile machine or common telephone, and this facsimile machine or common telephone at the time (idle status of a circuit) of intact between the keycard device 117 and the computer 111, Data communications are performed via the multi-channel communication control unit 113, the public network 115, and the communication adapter 116. Data communications are performed by what is called an off talk communication method. The security mechanism is equipped so that the 3rd person cannot access the supply ordering system 110 via the public network 115 at the keycard device 117.

[0017](3) As opposed to the keycard device 117 which similarly is installed in the customer, The amount-used data for every recording paper size for every using section gate of the copying machine 118 is collected one by one by the data reading instructions with the prescribed intervals (every day or every other day) from the computer 111, or the data receiving by the automatic call origination from the keycard device 117.

(4) Next, after automatic collection is completed to the amount-used data based on all the above-mentioned customer lists, the computer 111 performs data processing, such as a total, for every order unit and every recording paper size, and computes the amount of the recording form used as the following about each recording paper size for every order unit. That is, as shown in drawing 2, it is \leq (amount of amount-of-orders-received - used) proper inventory lower limit (it differs for every order unit on = generating standard).

When it comes to be alike, it stores in the order file of the external storage 112.

(5) a toner -- \leq (amount of amount-of-orders-received - used (toner consumption is converted with amount of average used of toner for every recording paper size)) proper inventory lower limit (= it differs for every order unit on a generating standard) from the above-mentioned amount of the recording form used

When it comes to be alike, it stores in the order file of the external storage 112.

[0018](6) Carry out repeat execution of the above-mentioned operation about all the customer lists.

(7) In addition, in the above-mentioned operation, when the automatic data acquisition improper situation by a certain cause occurs, data is collected by the inquiry by the customer visit or a telephone, etc., and the manual entry of this data is carried out to the computer 111.

(8) The computer 111 transmits the data in the order file of the external storage 112 to the computer 101 of the supply order accepting system 100 via the communication line (channel interface) 105 after all the above-mentioned operation finish. The computer 111 of the supply ordering system 110 performs the shipment check, the shipping instruction, delivery

instruction, and delivery processing to a customer based on the above-mentioned data.

(9) In the shipment check to the above-mentioned customer, if changing instruction occurs, a correction input will be performed with the console 102.

[0019]Therefore, for a customer, loads, such as ordering business to the inventory management and the maker by a supply pipe Osamu person in charge, are reduced by the above processing. An internal claim, work stagnation, etc. by a supply piece can be prevented beforehand. Since supply storage quantity is maintained by optimum dose and does not exceed a fixed quantity mostly, the storage space can be stopped to the minimum. For a supply supply side, the load in a supply order received or delivery service is reduced, and the demand from a customer can be conformed and satisfied.

[0020]

[Effect of the Invention]As explained above, according to the supply ordering system (claim 1) concerning this invention. When input storage management of the order information of a supply, and the order and delivery instruction which are used for the image forming device from a customer are performed, the amount of said supply used is collected at the predetermined intervals and the amount of the supply used reaches the specified quantity, Since the shipment requirement was outputted to the supply receiving means, can carry out reduction of the work in the inventory management by a supply pipe Osamu person in charge, ordering business, and the supply order received and delivery service by a supply maker, and. A supply storage space is stopped to the minimum, further, a supply piece is eliminated and the working efficiency and economical efficiency of supply pipe Osamu business can be planned.

[0021]According to the supply ordering system (claim 2) concerning this invention, by a supply receiving means. About supplies for copying machines, such as a recording form and a toner, at the time of an order received, perform an input and storage management, order, delivery instruction, etc. of this order information, and from a customer a supply placing means, When automatic collection of the amount used for every recording paper size was carried out with the prescribed interval, and data processing of the amount of the toner used is carried out and said recording form and the amount-used data of a toner become below in the inventory optimum dose lower limit for every customer, Carrying out data processing of a proper quantity of insufficient daily doses to an inventory, and having made it output a shipment requirement to said supply receiving means A sake, Reduction of the work in the inventory management by a supply pipe Osamu person in charge, ordering business, and the supply order received and delivery service by a supply maker can be carried out, and supply storage space, such as a recording form and a toner, is stopped to the minimum, and a supply piece can be eliminated further.

[0022]According to the supply ordering system (claim 3) concerning this invention, by a supply

receiving means. Shipment check, shipping instruction, and delivery processing are performed, the supply classification and the amount of orders received for every customer are inputted for every time of an order received, and all the customer lists and said order information are memorized for an external memory means at an order file. A supply automatic order means carries out automatic collection of the amount used for every recording paper size with a prescribed interval to all the above-mentioned customer lists, and. When data processing of the amount of the toner used is carried out and a recording form and the amount-used data of a toner become below in the inventory optimum dose lower limit for every customer, A shipment requirement carrying out data processing of a proper quantity of insufficient daily doses to an inventory, memorizing to the order file of an external memory means, and having made it output the data in this order file to an order-receiving-control means A sake, Reduction of the work in the inventory management by a supply pipe Osamu person in charge, ordering business, and the supply order received and delivery service by a supply maker can be carried out, and supply storage space, such as a recording form and a toner, is stopped to the minimum, and a supply piece can be eliminated further.

[Translation done.]